Abdalah, Evelyn Jane

An Analysis of the Learning activities in seven fifth grade American History Text books.

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AN ANALYSIS OF THE LEARNING ACTIVITIES IN SEVEN FIFTH-GRADE AMERICAN HISTORY TEXTBOOKS

A Thesis

Presented to

the Faculty of the School of Education

Boston University

In Partial Fulfillment

of the Requirements for the Degree

Master of Education

by

Evelyn Jane Abdalah

August 1949

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ACKNOWLEDGMENT

The writer wishes to acknowledge her indebtedness to Dr. W. Linwood Chase for his help and guidance in planning this study and carrying it to completion.

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CHAPTER I

INTRODUCTION

The purposes of this study are (1) to determine to what extent current fifth-grade American history textbooks provide for a variety of activities; (2) to make a comparison between textbooks on the basis of the variety of activities included; and (3) to learn to what extent the activities in these textbooks require the use of higher mental processes.

Textbooks are such a widely used and practical tool of learning that the problem of their selection is a very important one. More and more, classroom teachers have been called upon to recommend texts for their specific classroom situations. Because much of the teaching in social studies will be based on the use of the book, the writer feels that this study would be of interest to teachers and administrators in the selection of textbooks.

Pedagogical writings of the last century have shown that textbooks have often been important factors in shaping methodology. Whether textbooks lead or follow in the development of methods, it may be safe to say that where textbooks go, there goes the average teacher.

The suggested activities should be a major consideration in textbook selection in that they may provide rich

opportunities for developing the basic social-studies skills. It would seem desirable for textbook authors to include activities which would help train pupils in finding information, understanding information, judging facts and information, organizing information, presenting information, and opportunities for classroom participation.

Formerly the skills involving the acquisition of information had dominated the curriculum, but more and more educators have been stressing the importance of the thinking skills as essential to educating for citizenship in a democratic society. Not only adequate information but practice in using, organizing, and judging facts and information are all essentials of efficient social action in a democracy; hence, the desirability of making an analysis of textbooks for the amount of variety in their types of activities and their provision for the exercise of the higher mental processes.

In a study dealing with the activities and higher mental processes in the social studies, one cannot help but note the importance of the influence of John Dewey and the central principles of his philosophy.

> The ideas of central importance in this philosophy are: that knowledge originates in 'active situations', or problems; that education is preeminently a social process, and that school life must be unified, the school itself becoming a 'cooperative society'; that this facing of problems, considering means, making choices, making mistakes, achieving successes, and

> going on to other and more difficult problems under the drive of social inspiration, rather than of mere authority, is the true path of character; and that education thus actively considered is in harmony with democratic philosophy--is in fact the normal education of a free man in a society that he and his fellows create and recreate.[1]

Definition of Terms.

Activity. In this study the term activity may be defined in the following way. "Pupil activity is an aspect of pupil behavior, is any effort, exercise, or item of work, any expenditure of energy in any form, whether it be intellectual, emotional, or motor,--any task, the doing of which may aid the pupil in the attainment of valid educational objectives."[2]

Higher Mental Processes. The term higher mental processes is used in this study to designate the following activities, namely; organization of ideas; supplementation and use of ideas; and criticism and evaluation of ideas.

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1 Edwin H. Reeder, "John Dewey and the Activist Movement", Fifth Yearbook of the National Council for the Social Studies (Washington, D.C.: National Education Association, 1937), p. 40.

2 Roy A. Price, "The Use of Activities in Social Studies: A Critical Study of the Effectiveness of Fifty-Two Pupil Activities as Judged by Teachers and Students," (Unpublished Doctor's dissertation, Harvard University, 1938), p. ix.

CHAPTER II

REVIEW OF THE LITERATURE

Activity as growth

Educational phychology seeks to establish principles of human nature, child development, and learning upon which efficient teaching practices may be built. Among the major contributions of psychology to education has been the study of the growth pattern with its emphasis on the impulses, drives, or urges which lead children to activity and in turn to worthwhile educational outcomes. Among these impulses are the urge to dramatize adult life and understand it; the urge to find out and thereby satisfy curiosity; the urge to manipulate and construct; the urge to be 'on the go' physically or to be 'doing something'; the urge to share experiences and to communicate; and the urge to express thoughts and feelings aesthetically.[1]

Any of these set in motion through environmental factors reveal needs and desires which may be satisfied through various types of purposeful activity. Expression of ideas in concrete form; enjoying aesthetic experiences; solving intellectual difficulties; and making habits and skills automatic result in learning and behavior changes

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[1] William H. Kilpatrick, Foundations of Method (New York: The Macmillan Company, 1932), Chapter 21.

which are sometimes spoken of as knowledge and understandings, attitudes and appreciations, and habits and skills, and which educators call growth.

Definition of activity and the activity movement

The word 'activity' has been used in many and varied situations and often there have been conflicting opinions as to its meaning. It has been constued by some to refer only to direct experience; others speak of activity when they mean manipulative effort; and still others take it to mean large units of work. The definition and comments of Price[2] on activity and the activity movement are in keeping with the findings of the Committee on the Activity Movement of the National Society for the Study of Education. He defines pupil activity as an aspect of pupil behavior, any effort, exercise, or item of work, any expenditure of energy in any form, whether it be intellectual, emotional, or motor, - any task, the doing of which may aid in the attainment of valid educational objectives. He believes there is no such thing as passive learning. The child becomes educated by participation in a series of meaningful experiences. Under this concept of learning, the teacher's

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[2] Roy A. Price, "The Use of Activities in Social Studies: A Critical Study of the Effectiveness of Fifty-Two Pupil Activities as Judged by Teachers and Students." (Unpublished Doctor's dissertation, Harvard University, 1938), pp. 9-11.

task is that of selection of appropriate activities, the stimulation of pupils to engage in these activities, the direction and guidance of learning activity, and the provision of criteria for teacher and pupil evaluation of the results of activities.

Kilpatrick,[3] a member of the Committee on the Activity Movement, states that in general, the activity movement is confined to the elementary school and represents a reaction away from the practice once fairly dominant in American education of setting out in advance specific lessons for the children to learn. There were those who felt that in such practice the potentialities of the pupils were not sufficiently exercised. Educational leaders in universities as well as in the field of teaching were called upon to assist in defining the activity movement today. The following selection is among the best concise statements of the opinions of leaders on the meaning of the activity movement:

> Because each child has impulses to draw, to manipulate, to investigate, to play, to communicate, and to get satisfaction from being with others and doing things in relation with others, and because

---

[3]William H. Kilpatrick, "Definition of the Activity Movement," Thirty-Third Yearbook of the National Society for the Study of Education, Part II (Bloomington, Illinois: Public School Publishing Company, 1934), pp. 45-64.

> the growths represented by these are mutually interpenetrating, being distinguishable by their products but not separable, each activity is regarded as opportunity for a many-sided growing, the distribution of emphasis depending on the requirements of the particular situation. Total behavior patterns, including the emotional, intellectual, and active aspects, are qualitatively made over at the same time. This means the education of the whole child.[4]

Activity and school democracy

A study of democracy in education reveals that there are three outstanding principles underlying democracy according to William Kilpatrick[5] and other leaders in the field of education.[6] These principles are listed as follows: (1) Each person shall have the opportunity to develop to his highest capacity in the direction of the right and the good. (2) All of the institutions and resources in the world exist for man -- are man's use in his highest development. (3) Each person shall consider the welfare of the group of first importance but the group must consider the development of each individual as necessary to forward the highest development of group living.

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[4]Ibid., p. 62.

[5]William H. Kilpatrick, Education for a Changing Civilization (New York: The Macmillan Company, 1925), Chapter 3.

[6]Educational Policies Commission, Education for All American Youth (Washington, D. C.: National Education Association of the United States, 1944), 421 pp.

The implications of these principles for practice in an activity classroom are well-expressed by Seeds[7] and Diedrich,[8] who feel that activities help to provide for freedom of choice on the part of the individual; environmental possibilities so rich and varied that each can choose in line of his development and so grow; environmental factors that will stimulate large group enterprises which will demand for their completion small group and individual contributions.

A major viewpoint of those who believe in the activity program is that the world is a rapidly changing one. Facts and knowledge cannot be taught as infallible in a democracy. Therefore more and more stress is being put on the activities that involve the thinking processes. Testing, doubting, believing tentatively, criticizing, initiating, and searching are all characteristics of active intelligence which Redefer[9] states as being needed to a very large degree in democratic society.

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[7]Corinne Seeds, "Democratic Thinking and Living in the Classroom," Educational Method, 13: 57-63, November, 1934.

[8]Paul Diedrich, "What Kind of Society Do We Want?" Progressive Education, 13: 534-537, November, 1936.

[9]Frederick L. Redefer, "Underlying Philosophy of the Activity Movement", Education Outlook, 20: 218-224, May, 1929.

Related Studies

Recent textbooks in the social studies emphasize in their teaching aids lists of activities, exercises, or "things for the pupil to do." Curriculum-makers, school administrators, educational psychologists, and progressive classroom teachers refer with increasing frequency to study activity as a phase of the learning process. With this in mind, Wilson[10] has made a master list of study activities usable in secondary-school social science classes, which he suggests might be helpful to teachers in making assignments. He states that such a cataloguing of activities is valuable because it might bring suggestions to the teacher's mind and should therefore encourage a wider variety of study-activities than is general. His list includes many different types of activities as sub-topics of the following major divisions: visual, listening, oral, writing, drawing, manual, general, and purely meditative groupings. Wilson points out that the value of such a list depends upon its interpretation and application to specific cases and classes.

Wilson's list[11] was used as a basis for a questionnaire

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[10]Howard E. Wilson, " 'Things to Do' in the Social Science Classroom", Historical Outlook, 20: 218-224, May, 1949.

[11]Loc. cit.

study made by Price[12] who stated that there must be a variety of activities to provide for all phases of the child's physical, intellectual, and emotional development; also, a variety of activities permits the teacher to avoid monotony in the classroom and therefore build student interest. By varying the activities, the teacher may better select activities in line with individual abilities. Teachers were asked what activities they used in their social studies classes in grades four to twelve. The reactions of the students in grades seven to twelve to these activities were collected and analyzed to determine those activities regarded as helpful and those they liked to use in studying. Price states the following general conclusions:

> 1. Most essential activities on social studies classrooms as selected by teachers are those which require gathering of information from numerous sources such as textbooks, maps, graphs, tables, etc., and recitation and discussion in class of facts gathered.
>
> 2. There is little variety in activities which most teachers regard as essential to social studies teaching as indicated by the reactions to questionnaire for teachers.

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[12] Roy A. Price, "The Use of Activities in Social Studies: A Critical Study of the Effectiveness of Fifty-Two Pupil Activities as Judged by Teachers and Students," (Unpublished Doctor's dissertation, Harvard University, 1938), 365 pp.

3. Activities rated highest by students as liked are quite different from those which they rated highest as helpful. The best liked were those involving a greater element of direct experience and creative activity.

4. Possible interpretation of a comparison of rating teachers and students may be that teachers place too much emphasis on printed word and do not give suffieient attention to other activities such as listening to the radio, listening to illustrated lectures, pictures, drama, graphs, and similar teaching aids.[13]

The study pointed out that more emphasis should be placed on activities which provide for the use of information by the student in new situations. The activities which provide for creative expression, which serve to make the experiences of students more concrete, and which provide for a check upon the students' understanding as contracted with activities which stress memorization, are the ones which are of real value in student teaching.

Wrightstone and Campbell[14] have reported the results of a questionnaire answered by 900 social studies teachers in junior and senior high schools. The activities which seemed most important to the teachers who participated

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[13] Price, op. cit., pp. 287-291.

[14] J. Wayne Wrightstone and Doak S. Campbell, Social Studies and the American Way of Life (New York: Row Peterson and Company, 1942), pp. 64-65.

were reading to understand, reading to locate information, participating in group discussion, listening to oral presentations in the classroom, reciting in class, and giving special reports or floor talks. A summary by the authors pointed out that these teachers failed to recognize the value of other activities such as group-planning, excursions, listening to the radio, listening to illustrated lectures, and taking part in dramas and similar activities.

The need for greater variety of activity in the social studies is supported by Farthing who claims it better provides for individual differences:

> Social studies will never become a dynamic and functional subject if there is not a greater attempt to make it something more than a reading class. An analysis of the activities of the social studies in the upper elementary grades and junior high schools shows an almost complete dependence upon reading as a means by which ideas and information are secured. Activities other than reading must be provided if each individual is to be stimulated to active participation in the social studies. At present too many of the pupils are passive, due in part to the fact that they have not acquired information basic to participation.[15]

The argument for a curriculum permitting a wide range of activities is further supported by educators who feel that, although much of the material for the study of past

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[15] Dorothy K. Farthing, "Using Non-Verbal Instructional Materials in the Social Studies", Fifteenth Yearbook of the National Council for the Social Studies (Washington, D. C.: National Education Association, 1944), p. 87.

social living is organized as race experience in history textbooks, it is most meaningful to children when re-created in the form of first-hand experiences. The means for such re-living of past experience lies in the child's actual doing which may take the form of drawing, constructing, dramatizing, collecting, exhibiting, taking trips, discussing, writing, reading, and other forms of purposeful experience.

Studies have been made which survey and analyze the trends in experimental schools using activities to a great extent. Comparisons have been made between these experimental schools and conventional schools to determine the relative advantages of participating in many activities. Oberholtzer[16] reported a study comparing the results of learning of the activity type for 3,000 pupils on grades four and five. The data, compiled to aid in evaluating the Houston curriculum, consisted of standardized test results, written reactions of pupils and teachers, results of attitude and interest questionnaires, and reports of special observers. The results favored teaching through activity to a very great extent:

1. It is possible through an activity curriculum to maintain as high (or higher) standards of achievement

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[16]E. E. Oberholtzer, "The Activity Movement", Thirty-Third Yearbook of the National Society for the Study of Education, Part II (Bloomington, Illinois: Public School Publishing Company, 1934), pp. 136-142.

on the skill subjects as are maintained when these skills are taught through traditionally organized subjects executed by a fixed daily teaching schedule.

2. Less time for formal drill is used in the curriculum taught through activities.

3. There is more time and greater opportunity for the development of creative self-expression in an activity curriculum.

4. An activity curriculum permits greater freedom for real education.

5. Pupils acquire more information through an activity curriculum.

6. Pupils engaged in activities read more general literature than do those following the more formal curriculum.

7. The activity curriculum increases the pupils' interest in school and other worthwhile activities

8. Following a curriculum that is based on activity tends to improve the quality of teaching.[17]

Another such study is that of Bamesburger who outlined an attempt to evaluate certain outcomes of a social studies curriculum revision program.[18] The experiment aimed to determine the advantages of an activity type course of study over the more formal type of instruction. Several points were made in favor of teaching with activities:

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[17]Oberholtzer, op. cit., pp. 138-141.

[18]Velda C. Bamesburger, Appraisal of a Social Studies Course (New York: Teachers College, Columbia University, 1928), 91 pp.

1. The results of this study indicate that pupils taught by an activity type course of study did as well as or slightly better in achievement than pupils taught by the more formal textbook method of instruction.

2. It is probable that the basic textbook is the greatest factor in determining the amount of material acquired by pupils. The average teacher, even with a course of study containing a variety of activities and a wealth of reference materials, is inclined to follow rather closely the basic textbook.

3. The activity type course of study was responsible for encouraging desirable leisure reading habits on the part of pupils. Not only did the pupils taught by the new course of study read more books, but also a much wider range of books.

4. The pupils taught by the new course of study indicated more outside interests connected with the subject matter of the social studies than the control groups. By far the most frequently mentioned interests were those connected with motion pictures.

5. Pupils taught by the new course of study engaged in more constructional activities related to the subject matter of the social studies than pupils taught by the old course of study.[19]

Wrightstone[20] reported a study that surveyed and analyzed trends in experimental and conventional elementary schools in New York City. Interpretation of the data gathered supports the fact that the activity principle in the newer practices arouses pupil interest, results in

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[19]Bamesburger, op. cit., p. 63.

[20]J. Wayne Wrightstone, "Appraising Newer Practices in Teaching Social Studies", School Review, 42: 688-693, November, 1934.

broader and more comprehensive lessons, provides more and better opportunities for developing desirable social and personal qualities. Data were gathered on out-of-school leisure activities of the pupils. It seemed to indicate that the newer school practices significantly widened the scope of children's worthwhile activities and interests. Participation in activities such as constructing, caring for pets, using local libraries, visiting museums and art exhibits, reading newspapers and magazines, engaging in creative art and writing seemed to carry over into community activities and behavior.

The writer of this study found little research in direct relation to the examination of the activities of elementary history textbooks.

In 1929 Nudelman[21] undertook to examine five elementary history textbooks. He studied the books to determine the nature of pupil-exercises which textbook writers tended to suggest to their pupil readers. After classifying the total of 1,431 activities in all five textbooks, it was found that sixteen per cent called for factual knowledge; fourteen per cent emphasized the thought element; twenty-five per cent

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[21]Edward A. Nudelman, "Pupil Exercises Used in Elementary History Textbooks", The Elementary School Journal, 29: 352-357, January, 1929.

called for independent study, reading, debating, or speaking; and five per cent were of a miscellaneous nature. The conclusions of the study directly related to the present study are as follows:

> Textbook writers differ a great deal among themselves as to types of pupil exercises used.
>
> Present-day textbook writers exhibit much greater variety in the choice of pupil exercises than did textbook writers in the past.
>
> Even modern textbook writers, however, have more exercises of the question-and-answer type than of any other type.
>
> Where pupil exercises were included in the older books, they were very largely of the factual question-and-answer type.
>
> In devising pupil exercises, present-day textbook writers are influenced by the recent tendencies in the teaching of history to make the study concrete, to allow the pupil ample opportunity for self-expression, and to emphasize reasoning about history as well as acquisition of facts.[22]

Among the activities listed there were some which made provision for the exercise of the higher mental processes such as cause-and-effect relationships, opinions, discussions, comparisons, contracts, and 'why' or 'how' questions, all of which together made up fourteen per cent of the total activities.

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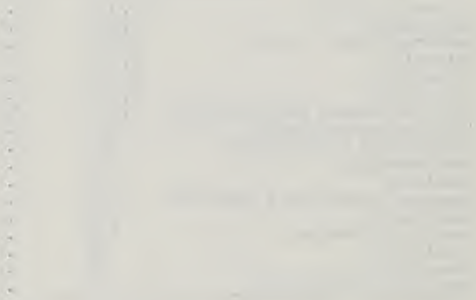
[22] Nudelman, op. cit., p. 357

In 1939 Mead[23] reported the analysis of forty-three junior and senior high school level workbooks published between 1926 and 1936 for the relative amounts of emphasis given by authors to particular abilities. The table used in the analysis includes mental abilities and abilities not primarily mental, which, in many instances, are not entirely separate from one another. The following is a reproduction of the table used in the study:

Ability	Number	Per cent
Collecting data	10,093	42.3
Remembering	2,346	9.8
Expressing one's self	2,305	9.7
Observing	1,506	6.3
Organizing	1,403	5.9
*Comparing	1,298	5.4
*Finding causal relationships	1,101	4.6
*Judging or evaluating	901	3.9
*Explaining a conclusion	727	3.1
Comprehending	695	2.9
Imagining	495	2.1
*Drawing conclusions from data	475	2.0
*Analyzing	182	.8
Drawing inferences	110	.5
*Initiating	99	.4
Classifying	43	.2
*Applying conclusions	31	.1
Total	23,840	100.0

[23] Vera Albert Mead, "What Abilities Are Stressed in Workbooks in History?" School Review. 47: 284-289, April, 1939.



The learning exercises in the history workbooks were devoted chiefly to the ability to collect data, almost forty-three per cent being used to develop this ability. The data in the table indicate that remembering, expressing one's self, observing, and organizing are among the first five abilities stressed. These, with collecting data, absorb nearly three-fourths of all the exercises. Those which can be identified as problem-solving abilities (starred in table) involve approximately twenty per cent of all the exercises. The author concluded that workbooks offer a great number of exercises which provide training in a number of abilities, but when the books were taken collectively, there was a strong tendency to stress non-problem-solving abilities.

Any published material of instruction, if it is to continue, should be planned in accordance with sound principles of psychology and good teaching. The tendencies in the teaching of school history to make the study real, to consider the interests of the pupils to be taught, and to develop reasoning powers as well as the acquisition of facts have prompted many experimental studies dealing with pupil interests and preferences; verbalism in textbooks; types of activities included in workbooks and textbooks; and analysis of textbooks and workbooks for their opportunities to exercise the higher mental processes.

Jackson[24] reported a questionnaire study of children's interests in activities in their social studies classes in grade seven. The check list containing one hundred activities that have been used in social studies classes included oral, written, visual, manual, meditative, auditory, drawing, and general activities. The child had the choice of checking activities he enjoyed and those he would like to try. The sampling used was not sufficiently adequate for the experimenter to draw any final conclusions, but there were several interesting points made. There was a universal interest in the part of the pupils in the activities that could be used in the social studies. A large number of the students had not had the opportunity to engage in many of the activities. Listening activities were the most popular while oral activities rated lowest in appeal. It was interesting that less than half the group had had the opportunity to take part in debates, make time lines, take part in make-believe radio programs, dramatize scenes from history, make outlines to help the class study or recite, or act as chairman during current events lessons.

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[24]Margaret Mary Jackson, "Children's Interest in Activities in Their Social Studies Classes (Grade VII)," (Unpublished Master's thesis, Boston University, 1945), 45 pp.

Children's interests were also studied by Wallenthin[25] who attempted to determine the preferences of fifth and sixth grade pupils in the written activities of the social studies. Fellow-teachers helped with suggestions so that the list used contained all feasible writing activities and a few drawing ones. The results showed that the individual choices were as widely varied as the individual personalities themselves. It was interesting that fifth and sixth grade pupils prefer to work with two or three other people to write a report over all other activities. On the other hand, pupils of grade five and six preferred least of all to write a summary.

Worters[26] undertook to determine to what extent fifth-grade history textbooks provided for purely verbal activities including oral, written, and reading activities, and for other activities of the non-verbal type such as observation, construction, creative, pictorial and graphic, exploratory, appreciation, collecting, club, preparation of exhibits, and preparation of assemblies. In the ten books

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[25]Doris V. Wallenthin, "Preferences of Fifth and Sixth Grade Pupils in Written Activities of the Social Studies," (Unpublished Master's thesis, Boston University, 1945), 45 pp.

[26]Norma Louise Worters, "An Analysis of Fifth-Grade History Textbooks to Compare the Purely Verbal Activities with the Other Activities," (Unpublished Master's thesis, Boston University, 1946), 63 pp.

examined, there were a total of 2,479 activities. About seventy-five per cent of these were verbal and twenty-five per cent were listed in the non-verbal category. The experimenter expressed the opinion that most of the books needed some additional activities so that the pupils would be able to interpret or represent their facts in some manner other than in a purely verbal fashion.

In 1948 parallel studies were made by Cronin[27] on a junior high level, and Megas[28] and Zetes[29] on a senior high level, analyzing workbooks in order to make a comparison of the kinds of activities included in general. All three studies were consistent in reporting that, by far, the greatest number of opportunities to perform were in the area of recall of information.

In 1945 Phillips[30] analyzed and classified the questions

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[27]Margaret G. Cronin, "An Analysis of Workbooks in American History - Junior High Level," (Unpublished Master's thesis, Boston University, 1948), 84 pp.

[28]Nicholas Megas, "Analysis of United States History Workbooks on a High School Level," (Unpublished Master's thesis, Boston University, 1948), 115 pp.

[29]Christie Zetes, "An Analysis of the Content of World History Textbooks on a Senior High School Level," (Unpublished Master's thesis, Boston University, 1948), 80 pp.

[30]Laura D. Phillips, "An Analysis and Classification of the Questions and Exercises in Ten Fourth-Grade Geography Books," (Unpublished Master's thesis, Boston University, 1945), 75 pp.

and exercises in ten fourth-grade geography books on the basis of the mental processes required to do the exercises and answer the questions. She classified the mental processes under the headings of Recall, Organization, Supplementation and Use of Ideas, and Criticism and Evaluation of Ideas. The conclusions of the study showed that out of 9,483 questions and exercises in the ten texts, approximately eighty-one per cent were classified as recall and the remaining nineteen per cent were classified as requiring the higher mental processes. The contribution of the ten geographies used in the study to the training of the higher mental processes is negligible.

A similar study by Johnson[31] in 1948, who used fifth-grade geography workbooks, reported that of 6,825 exercises, approximately seventy-seven per cent were classified under the lower mental processes with only twenty-three per cent requiring the use of the higher mental processes. The results of this study indicated that, by far, the larger part of the questions and exercises in geography workbooks necessitate only the use of the lower mental processes especially recall and recognition. Only a relatively small

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[31]Everett A. Johnson, "An Analysis of Fifth-Grade Geography Workbooks on the Basis of Mental Processes Involved," (Unpublished Master's thesis, Boston University, 1948), 66 pp.

part of the exercises make use of the skills associated with critical thinking, which are deemed so necessary in enabling persons to meet the problems of life in a democratic society.

Not only have the foregoing studies shown a lack of variety in activities in general but, more specifically, they have shown a surprisingly small number of activities which call for the use of the higher mental processes. Judd has stated, "If by any means the educational system can discover how to promote even in the slighest measure the development of the higher mental processes, great advantage will be gained for civilization."[32]

The following statements emphasize the need at all levels for activities which give practice in thinking and problem-solving:

> At one time it was supposed that there were definite stages in the development of reasoning power and that reasoning ability did not really appear until adolescence. One of the harmful effects of the application of this theory to education was to make the purpose of instruction at the lower levels the memorization of facts by drill. The modern opinions that even young children can reason in terms of their own knowledge and understanding and that competence in problem-solving increases gradually with age, however, have helped to free the elementary school from the traditional emphasis upon drill without meaning.

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[32]Charles Hubbard Judd, Education as the Cultivation of the Higher Mental Processes (New York: The Macmillan Company, 1936), p. 4.

> The task of the teacher at every grade level is to provide meaningful learning exercises which will stimulate pupils to think, even though there may be great individual differences in their ability to solve problems. Critical thinking is developed through continual practice and provision for its development should be made in every subject since there seems to be little transfer from one field to another.[33]

Statements about skill development in the higher mental processes by Hanna[34] point out that the skills of thinking do not develop as the concomitants of learning but must be made the primary objects of instruction. For example, critical thinking will develop, not as a by-product of teaching, but only when activities are planned which have as their definite purpose the accurate interpretation of data, critical analysis of data, critical analysis of arguments, logical reasoning, organization, comprehension, and the formulation and application of sound generalizations.

These statements are supported by experimental studies which lead to the general conclusion that, with systematic instruction, it may be assumed that the powers of critical thinking may be influenced perceptibly. Such studies were

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[33]Judd, op. cit., pp. 92-93.

[34]Lavone Hanna, "Providing for Individual Differences in Teaching Critical Thinking", Fifteenth Yearbook of the National Council for the Social Studies (Washington, D. C.: National Education Association, 1944), p. 87.

made by Wrightstone,[35] Arnold,[36] and Glaser.[37]

Experiments have been made to attempt to show that skill in other types of thinking have been improved with purposeful instruction. Helseth[38] experimented with seventh and eighth grade children in trying to improve their thinking in history. This was done by encouraging and guiding the children to formulate their own questions on the history material in the course rather than using the usual recitation method. The results of tests given to experimental and control groups showed that there was an improvement in children's thinking when more conscious attention was given to methods of study.

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[35] J. Wayne Wrightstone, Appraisal of Newer Elementary School Practice (New York: Columbia University Press, 193), 221 pp.)

[36] Dwight L. Arnold, "Testing Ability to Use Data in the Fifth and Sixth Grades", Educational Research Bulletin 17: 255-294, December 7, 1948.)

[37] Edward M. Glaser, An Experiment in the Development of Critical Thinking. Columbia University Contribution to Education No. 843. (New York: Columbia University Press, 1941), 212 pp.)

[38] Inga C. Helseth, Children's Thinking, Columbia University Contribution to Education No. 209. (New York: Columbia University Press, 1926), 163 pp.

Johnson[39] experimented with two high school classes with a conscious use of a technique in logical thinking. There were very definite gains made with the experimental group. The data offered evidence that when pupils are taught to use, consciously, a technique of logical thinking, they try more varied methods of attack, reject erroneous suggestions more readily, and, without being discouraged, maintain an attitude of suspended judgment until the method has been shown to be correct. The writer of the study felt that better results were obtained with the experimental group because they were shown that problems could be solved by a definite train of mental processes.

Newlun[40] found that summarizing in the fifth grade, if properly used and developed, could be more effective than the usual question-and-answer type of recitation. The experiment, conducted in New York, was part of a larger study on the technique of study itself. It was made to discover whether the ability to summarize the important facts of history increases the achievement of fifth-grade

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[39]Elsie Parker Johnson, "Teaching Pupils the Conscious Use of a Technique of Thinking," The Mathematics Teacher, 17: 191-201, April, 1924.)

[40]Chester Otto Newlun, Teaching Children to Summarize in Fifth Grade History, Columbia University Contribution to Education No. 404. (New York: Columbia Press, 1930), 75 pp.

pupils in history or in reading. It was interesting to note that the study reported the ability to distinguish between the important and less important as the most necessary skill in summarizing.

The writer of this study has attempted to report evidences of the possible values in fifth-grade history textbooks of a variety of activities, particularly those which involve the use of ideas. Since textbooks are such a widely used tool of instruction and often help in determining methodology, their suggested exercises should contain a good balance of a variety of activities and make greater provision for the important but highly-neglected training in the higher mental processes.

CHAPTER III

PROCEDURE

For the purposes of analyzing the activities in fifth-grade history textbooks it was necessary to prepare the following aids:

1. A classification of activities
2. A classification of the higher mental processes
3. A list of the books used in the analysis

Classification of activities

The classification of activities used in this study was adapted from a list of learning activities and experience by Diedrich.[1] The classification included visual, oral, listening, writing, drawing, motor, mental, and emotional activities. Listening activities, mental activities, and emotional activities were omitted in the classification presented in this study. The listening activities, for the most part, were a repetition of the oral activities. The emotional activities were actually feelings accompanying all other activities. Mental activities were included for the most part under discussion and test activities and were omitted since every activity was also studied separately for the mental processes involved.

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[1]Paul B. Diedrich, "A Master List of Types of Pupil Activities," Educational Research Bulletin, College of Education, Ohio State University, Vol. 15, September 16, 1936.

The five major types of activities chosen were visual, oral, writing, drawing, and motor. The visual activities included reading for information, reading for development of skills, observation of pictures, observation of maps, and field trips.

The oral activities included recitations, the asking of questions, discussions, interviews, and holding programs. Reports might have been included with oral activities but were listed under written activities since reports are generally written before they are given orally in the fifth-grade.

Writing activities included composition activities such as stories, essays, poems, and plays; the making of reports; the making of outlines; taking tests; filling in questionnaires; making a dictionary; making a who's who; keeping a diary; and writing letters.

Among the drawing activities were the making of pictures; the making of graphs, charts, or diagrams; and mapmaking.

Motor activities included collection of materials or pictures, dramatizations, holding exhibits, constructing models, and performing experiments.

For purposes of this study, the term activity is used generally to denote each instance in which one complete answer or response must be made. In some cases, particularly in taking tests, holding discussions, having special programs,

making reports, and studying pictures, many responses must be made during the activity.

It is apparent that, in several cases, there is a certain amount of overlapping in the various types of activities. In such cases, the division which seemed most representative of the type of activity was used.

The classification of activities used in this study is as follows:

I Visual activities
   1. Reading for information
   2. Reading for skill development
   3. Picture observation
   4. Map observation
   5. Field trips

II Oral activities
   1. Recitations
   2. Asking questions
   3. Holding discussions
   4. Holding interviews
   5. Holding programs

III Writing activities
   1. Composition (stories, essays, poems, plays)
   2. Making reports
   3. Making outlines
   4. Taking tests

5. Filling in questionnaires
6. Making dictionaries
7. Making a who's who
8. Keeping a diary
9. Writing a letter

IV Drawing activities

1. Making pictures
2. Making maps
3. Making graphs, charts, or diagrams

V Motor activities

1. Collecting materials
2. Dramatizing
3. Holding exhibits
4. Constructing models
5. Performing experiments

Sample exercises of each type of activity used in the classification of activities for this study are as follows:

I Visual activities

1. Reading for information

   Read about an adventure of Daniel Boone.

2. Reading for skill development

   Find the table of contents of this book. What is it called? In what part of the book is it? What does it include?

3. Picture observation

Picture of Columbus' return. What are some of the things which Columbus brought back with him?

4. Map observation

Locate on a map the following places: Boonesboro, Cumberland, Albany, Pittsburgh, New Orleans, San Francisco.

5. Field trips

Visit a bank and find out how deposits are insured. Report to the class.

II Oral activities

1. Recitations

Describe the battle between the "Monitor" and the "Merrimac".

2. Asking questions

Prepare a "Best Answer" quiz program with each pupil writing the first part of a sentence and then giving four choices of ways to complete the sentence.

3. Holding discussions

"Talking Together"

Why was a man in New England in the days of the Puritans often called a jack-of-all-trades?

4. Holding interviews

Choose a committee to interview the postmaster to find out about all the different kinds of service furnished by the post office to the people of your community.

5. Holding programs

Plan an assembly program, "Then and Now" for your school.

III Writing activities

1. Composition

Write a story about "Our First Days on a Flatboat".

2. Making reports

Read a description of one army training camp. Report to the class.

3. Making outlines

Major ideas are made up of many minor ideas. Topic 1 has eleven paragraphs, and an outline of it would start like this:

1. La Salle plans a French empire
   a. Where the French hoped to settle
   b. Coming of La Salle to America

Find the other minor ideas under this topic in your text and add them to your outline.

4. Taking tests

Make short work of these questions.

Why did people want to travel to the Far East by sea rather than by land?

What was the great plan on which Prince Henry was working?

How did Prince Henry carry out this plan?

Of what were his soldiers afraid?

What kind of school did Prince Henry open in his tower?

5. Filling in questionnaires

Checking Your Skills and Habits

Copy this list of questions. Answer each question with a "No", "Yes", or "Sometimes".

Do I take part in class discussions?

Do I question the statements made by other pupils?

Do I help in class planning by contributing suggestions?

Do I locate materials by using the contents or index of a book?

Do I select from a book only the parts relating to my report?

Can I make a simple bibliography?

6. Making dictionaries

Choose a committee to plan a dictionary of words used especially in history, such as the words in this unit: colony, continent, saga, compass, ship's log, Pope's line, Western hemisphere.

7. Making a "who's who"

Why not start a "Who's Who in American History" and keep adding to it through the year? You might begin with Lief Ericson.

8. Keeping a diary

Write the diary of a French boy whom Champlain left to spend a winter with the Algonquin Indians.

9. Writing letters

Imagine that you are working in an early western mining camp. Write a letter telling about life in the camp.

IV Drawing activities

1. Making a picture

Take a piece of wrapping paper the length you want and turn it sideways. On it draw a series of pictures in color telling the story of Columbus' voyages.

2. Making maps

How large was the United States at the close of the American Revolution? Draw a map to illustrate.

3. Making graphs, charts, or diagrams

Make a time line to show the territorial growth of the United States from 1783 down to the present time.

V Motor activities

1. Collecting materials

Magazines and newspapers often contain pictures of pioneer life. Collect and mount some of these pictures.

2. Dramatizations

Make a play out of the story of the last spike on the first Pacific railroad.

3. Holding exhibits

Ask the stamp collectors in your class to bring in commemorative stamps from their collections and explain them.

4. Constructing models

Make a model of an airplane.

5. Performing experiments

Build a short piece of corduroy road through a soft muddy place by laying sticks or small

poles side by side. Pull each other over it in a coaster wagon. How would you like to ride over it all day?

Classification of Mental Processes

In order to make an analysis of the activities in fifth-grade history textbooks, it was necessary to set up a classification of the various types of mental processes required for their completion. The classification used was taken from a study by Johnson[2] who derived it from the studies of such experts in the field as Judd[3], Marcham[4], and Durrell[5] and other experimental studies such as those by Phillips[6],

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[2]Everett A. Johnson, "An Analysis of Fifth-Grade Geography Workbooks on the Basis of Mental Processes Involved," (Unpublished Master's thesis, Boston University, 1948), pp. 30-32.

[3]Charles Hubbard Judd, Education as the Cultivation of the Higher Mental Processes (New York: The Macmillan Company, 1936), pp. 106-137.

[4]Frederick George Marcham, "The Nature and Purpose of Critical Thinking in the Social Studies," Thirteenth Yearbook of the National Council for the Social Studies (Washington, D.C.: National Education Association, 1942), pp. 1-48.

[5]Donald D. Durrell, "Language and the Higher Mental Processes," Review of Educational Research, 13: 110-114. April, 1943.

[6]Laura D. Phillips, "An Analysis and Classification of the Questions and Exercises in Ten Fourth-Grade Geography Workbooks," (Unpublished Master's thesis, Boston University, 1945), 70 pp.

Mead[7], and Dean[8].

The classification was divided into four levels. The lowest level under the heading of Lower Mental Processes included recall of facts from the text and other sources; recognition in such exercises as true-false, matching, multiple choice, and location of places or facts from data on maps, charts, diagrams, or tables; and also, reproduction or drawing pictures, maps, diagrams, charts, or tables according to directions given. Under the heading of Higher Mental Processes there were three main divisions set up as follows: Organization of Ideas, Supplementation and Use of Ideas, and Criticism and Evaluation of Ideas. The higher levels were further subdivided into a number of more specific processes.

In many of the activities analyzed there was a certain amount of overlapping of the various classifications in the performance of that activity. In such cases, the classification that seemed most representative was the one selected.

In some of the activities, such as discussions and taking tests, a number of mental processes were involved.

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[7]Vera Albert Mead, "What Abilities Are Stressed in Workbooks in History," School Review, 47: 284-289. April, 1939

[8]Alice M Dean, "A Study of the Range and Type of Comprehension on Fourth-Grade Reading," Master of Arts Thesis, 1932. Reported by Gerald A Yoakum, "Research Studies in Work Type Reading: A Summary of Work Done at One University," Journal of Educational Research, 29: 532-543, March, 1946.

Each time a complete answer or response was made, that activity or part of the activity was studied for the mental processes necessary for its performance. Therefore, the final total number of activities studied for mental processes is a larger number than that reported in the counting of activities studied for types.

The classification of mental processes used in this study is as follows:

I Lower mental processes

- A. Recall of facts from the text or other sources.
- B. Recognition in such exercises as true-false, matching, multiple choice, and locations.
- C. Reproduction of pictures, maps, charts, and diagrams according to directions given.

II Higher mental processes

- A. Organization of Ideas
  1. Select items pertinent to the topic
  2. Classify and arrange
  3. Find major or minor points
  4. Outline
  5. Summarize
  6. Collect pictures, articles, clippings, etc., to illustrate a topic
  7. Prepare a special report

B. Supplementation and Use of Ideas

1. Find examples or applications
2. Suggest plans for activities related to topic
3. Suggest additional topics for study
4. Show relationships
5. Apply knowledge or principles to new situations
6. Draw conclusions or inferences from data supplied in text, maps, charts, diagrams, or tables.
7. Find or suggest reasons for facts or statements
8. Make generalizations
9. Handwork to illustrate a fact or principle
10. Make comparisons
11. Find differences or similarities
12. Create or invent new combinations of ideas.

C. Criticism and Evaluation of Ideas

1. Recognizing special merit of ideas presented
2. Finding exceptions to the point made
3. Suggest limitations or precautions

4. Analyze methods or motives
5. Discriminate between fact and opinion
6. Discovering bias or prejudice
7. Discovering over-generalization
8. Eliminate unimportant or irrelevant material
9. Evaluating evidence or explanations
10. Evaluating suitability of a presentation for a particular purpose

Samples of each item in the classification of mental processes used in this study are as follows:

I. Lower Mental Processes

A. Recall of facts from text and other sources

What kind of school did Prince Henry open in his tower?

For what country did John Cabot claim North America?

B. Recognition true-false, matching, location of places or facts from data on maps, charts, diagrams, or tables.

What was the western boundary of the United States in 1800?

(a) Appalachian Mountains, (b) Rocky Mountains, (c) Mississippi River, (d) Pacific Ocean

Here are some statements about four of the following men: William Penn, Champlain, Lord Baltimore, Roger Williams, Thomas Hooker, Oglethorpe, Peter Stuyvesant, John Winthrop. Number your paper from 1 to 4. After each number write the name of the man about whom the statement is true.

1. A Quaker founded Pennsylvania.
2. This Dutchman gave up his colony to the English.
3. He was the first governor of the Massachusetts Bay Colony.
4. He received the grant of Maryland from the king of England.

Locate on a map the following places: California, Oregon, Michigan, Missouri, North Carolina, Maryland.

C. Reproduction - drawing pictures, maps, diagrams, or charts, according to directions given.

Take a piece of wrapping paper the length you want and hold it sidewise. On it draw a series of pictures in color telling the story of Columbus' voyages. Such a series is called a frieze. Choose your own scenes or use some of these:

(a) Columbus seeking help at the court of Spain

(b) His three ships sailing west

(c) His landing at San Salvador

(d) His return to Spain in triumph

(e) Setting out on the second voyage

(f) His return in chains from the third voyage

II Higher Mental Processes

A. Organization of Ideas

1. Select items pertinent to the topic.

A list of statements follows. Each might be the first sentence of a paragraph in some book. Your topic is "Home of the Colonists". Ask yourself: "Judging from the first sentence, shall I find that this paragraph tells something about my topic?"

Lumbermen cut tall trees for masts.

Often the first shelter was of bark, or was a cave.

The Pennsylvania Germans were a thrifty people.

The Virginians were fond of horse-racing and hunting.

When the house was done, rude furniture was built.

Fire helped in clearing the land.

The log houses had oiled paper for windows.

Quakers would not take off their hats even to the king.

2. Classify or arrange.

Copy these groups of events on your paper. Arrange in order of time by putting 1 in front of the event that happened first, 2 in front of the second, and 3 in front of the third.

A. Discovery of gold in California
Oregon boundary fixed by treaty.
Purchase of Louisiana

B. War of 1812
Lewis and Clark expedition
Purchase of Alaska

C. Thomas Jefferson is elected President.
Mexico becomes a nation.
Texas becomes a separate nation.

3. Find major and minor points

Major ideas are also made up of many minor ideas. Topic 1 under A has eleven paragraphs, and an outline of it would start like this:

1. La Salle plans French empire
    a. Where the French hoped to settle
    b. Coming of La Salle to America

Find other minor ideas under this topic in your text and add them to your outline.

4. Outline

Copy the outline below on paper and fill in all the blanks. You may need to read again the last two chapters in order to do this.

I American frontiers
1. The country west of the Appalachians
2.
3.
4.
5.
6.
7.

II Ways of travel

1. Stagecoach
2.
3.
4.
5.
6.
7.

III Ways to carry news

1. Telegraph
2.
3.
4.

5. Make a summary

Write the story of Texas. You might call the story "Texas Under Five Flags."

6. Collect articles, pictures, etc., to illustrate a topic.

Collect and mount pictures of modern harvesting machines.

7. Prepare a special report.

Read about an adventure of Daniel Boone and tell the story to the class.

Any one of the many people of this period who had thrilling adventures

and unusual experiences would make a good subject for a report; for example, John C. Fremont, Kit Carson, Sacajawea, Stephen Austin, Sam Houston, and others.

B. Supplementation and Use of Ideas

1. Find examples or applications.
   Everything that happens is a part of history but some events are more important than others. Do you know anything that is happening in the United States or in the world today that may be in future history books?
2. Suggest plans for activities related to topic.
   Plan an assembly program, "Then and "Now", for your school.
3. Suggest additional topics for study.
   Get several others to take a part with you in a panel discussion or "town meeting." Choose a subject for discussion with two sides.
4. Show relationships.
   Discuss the ways in which each of the following helped unite our country into one great nation: railroads,

telephone, telegraph, radio, farm machinery, automobile, airplane, and books.

5. Apply knowledge or principles to new situations.

   Can you name the "four freedoms?" In what ways would your life be different if you lived in a country without them?

   If you had been a member of a pioneer family trying to decide whether to settle in California or Oregon, where would you have urged them to go?

6. Draw conclusions on inferences from data in text, maps, diagrams, pictures, or tables.

   Judging from the graphs, how many people lived in each city?

   How many people lived in each section?

   Judging from the picture, what do you think the "Bird Woman" is saying?

7. Find or suggest reasons for facts or statements.

   San Francisco began as an important town and developed into an important

city. Why was this to be expected? Most of the Puritans of New England lived in towns, but most of the early settlers of Virginia lived on plantations. Can you tell why this happened?

8. Make generalizations.

I helped found the Plymouth Colony in 1620.

I was the military leader of the Pilgrims.

I helped keep unfriendly Indian tribes from the colony.

Who am I?

9. Handwork to illustrate a fact or principle.

Plan a frieze in three parts, illustrating the prairie wagon, stagecoach, and railroad as means of transportation across the prairies. Put in the date for each section of the frieze.

10. Make comparisons

Compare the map of the Northwest Territory on page 223 with a geography map of the same region to find out the names of the five states that were made from the Northwest Territory.

11. Find differences or similarities.
    In how many ways is your life different from Abraham Lincoln's when he was a boy?
12. Create or invent new combinations of ideas.
    Write the diary of the French boy whom Champlain left to spend a winter with the Algonquin Indians.

C. Criticism and Evaluation of Ideas

1. Recognizing special merit of ideas presented.
   Would it have been better to let the South leave the Union and have two countries than to fight the war?
2. Finding exceptions to the point made.
   None found.
3. Suggest limitations or precautions
   None found.
4. Analyze methods or motives.
   Suppose you were in England in 1700 and wanted to come to America. Decide which colony you would choose as your home and give your reasons for your choice.

Boston University
School of Education
Library

5. Discriminate between fact and opinion
   None found
6. Discovering bias or prejudice
   None found
7. Discovering over-generalization
   None found
8. Eliminate unimportant or irrelevant material
   Something is wrong with each of the following statements. On a separate sheet copy the sentences, leaving out or correcting the part in each that is not true.

   Among the heroes of South America are Bolivar, Miranda, Juarez, and San Martin.

   Brazil freed itself from Spain, had an emperor who ruled for many years, built many factories and railroads, and finally became a republic with a president.
9. Evaluating evidence or explanations
   Read in other books the story of Benedict Arnold. Do you think he was too severely punished? Give reasons for your answer.
10. Evaluating suitability of a presentation for a particular purpose.
    None found

Books Used in the Study

Seven fifth-grade American history textbooks were used in this study. All of the activities contained in each book were analyzed for variety. In addition each activity was studied for its opportunities for the exercise of the mental processes. Since some activities involved several opportunities for using the mental processes, the total number of instances where they are required, exceeds the number of activities reported for variety.

The seven books chosen for this study are as follows:

A. Barker, Eugene C., Marie Alsager, and Walter P. Webb, The Story of Our Country, Evanston, Illinois: Row Peterson and Company, 1948. 480 pp.

B. Beeby Daniel J., Joyce L. Hanna, and C. H. McClure, Our Country, New York: Laidlaw Brothers, 1946. 384 pp.

C. Cordier, R. W. and E. B. Robert, History of Young America, New York: Rand McNally Company, 1948. 246 pp.

D. Kelty, Mary G., The Story of Life in America, Boston: Ginn and Company, 1946. 608 pp.

E. Lansing, Marion, W. Linwood Chase, and Allan Nevins, Makers of the Americas, Boston: D. C. Heath Company, 1947. 468 pp.

F. McGuire, Edna, America Then and Now, New York: The Macmillan Company, 1948. 452 pp.

G. Moore, Clyde B., and others, Building Our America, New York: Charles Scribner's Sons, 1948. 468 pp.

CHAPTER IV

ANALYSIS OF DATA

The following tables present the data on the analysis of learning activities in the seven fifth-grade history textbooks used in this study.

Table IA shows the numerical distribution of activities found in the books that were classified under the subdivision of visual activities. Of the 365 visual activities, the largest number were reading activities with 103 classified under reading for information and seventy-four classified under reading for skill development. Of the 81 opportunities under picture observation, seventy-nine were found in one book. The 91 opportunities for map observation were found, for the most part, in two books. There were only sixteen opportunities for field trips in all books analyzed. Book D has the largest number of opportunities for visual activities.

TABLE IA

NUMERICAL DISTRIBUTION OF VISUAL ACTIVITIES IN SEVEN FIFTH-GRADE HISTORY TEXTBOOKS

	Visual Activities					
Book	Reading for information	Reading for skill development	Picture observation	Map observation	Field trips	Total
A	26	0	0	2	2	30
B	4	0	0	7	1	12
C	4	0	0	4	1	9
D	28	9	79	6	2	124
E	9	11	0	0	0	20
F	16	22	2	49	9	98
G	16	32	0	23	1	72
Total	103	74	81	91	16	365

Table IB shows the numerical distribution of oral activities in the books analyzed. There were 280 oral activities in all books. Of these, there were 176 opportunities for holding discussions. There were only three books which contained the ten activities listed under asking questions. There were only sixteen opportunities in all books for holding interviews. There were fifty-three opportunities for recitation. The opportunities for holding programs were twenty-five.

TABLE IB

NUMERICAL DISTRIBUTION OF ORAL ACTIVITIES IN SEVEN FIFTH-GRADE HISTORY TEXTBOOKS

	Oral Activities					
Book	Recitations	Asking questions	Holding discussions	Holding interviews	Holding programs	Total
A	11	5	47	2	12	77
B	14	0	0	0	0	14
C	0	0	5	2	1	8
D	5	0	7	0	2	14
E	2	3	39	2	4	50
F	2	0	3	8	3	16
G	19	2	75	2	3	101
Total	53	10	176	16	25	280

Table I C shows the numerical distribution of writing activities found in the books analyzed. There were 351 writing activities in all books. The largest number were classified under taking tests with 141 opportunities. The next larger number of writing activities were classified under making reports with eighty-one opportunities. There were fifty-five opportunities for composition writing. The two opportunities for filling in questionnaires were found in a single book. Book E had the greatest variety of writing activities, with every subdivision represented. There were very few activities classified under making a who's who, keeping diaries, and writing letters.

TABLE IC

NUMERICAL DISTRIBUTION OF WRITING ACTIVITIES IN SEVEN FIFTH-GRADE HISTORY TEXTBOOKS

	Writing Activities									
Book	Composition writing	Making reports	Making outlines	Taking tests	Filling in questionnaires	Making dictionaries	Making a who's who	Keeping diaries	Writing letters	Total
A	25	32	9	0	0	19	7	2	4	98
B	5	8	0	8	0	0	0	0	1	22
C	0	2	0	20	0	0	0	0	0	22
D	1	9	1	50	0	0	0	0	0	61
E	6	3	2	18	2	3	4	2	3	43
F	8	10	7	4	0	4	0	0	2	35
G	10	17	0	41	0	2	0	0	0	70
Total	55	81	19	141	2	28	11	4	10	351

Table I D shows the numerical distribution of drawing activities in the seven books analyzed. There was a total of 136 drawing activities in all books. There were fifty-one classified under making-pictures. Forty-three were classified under making maps. There were forty-two opportunities under making graphs, charts, diagrams. It was interesting that Book A had the largest number of drawing activities while Book B had only three drawing activities, and Book D only one. Four books made no provision for making maps.

TABLE ID

NUMERICAL DISTRIBUTION OF DRAWING ACTIVITIES IN SEVEN FIFTH-GRADE HISTORY TEXTBOOKS

	Drawing Activities			
Book	Making pictures	Making maps	Making graphs charts diagrams	Total
A	15	25	13	53
B	3	0	0	3
C	6	0	7	13
D	0	0	1	1
E	10	9	9	28
F	4	0	5	9
G	13	9	7	29
Total	51	43	42	136

Table IE shows the numerical distribution of the activities classified under the sub-division of motor activities. There was a total of 152 motor activities in all books. The largest number of motor activities were classified under the sub-division of collecting material with forty-five opportunities. The smallest number of motor activities were under the sub-division of performing experiments with all thirteen opportunities in the same book. Books A and G had the greatest variety of motor activities while Book C and D had only six and four respectively.

TABLE IE

NUMERICAL DISTRIBUTION OF MOTOR ACTIVITIES IN SEVEN FIFTH-GRADE HISTORY TEXTBOOKS

	Motor Activities					
Book	Collecting materials	Dramatizing	Holding exhibits	Constructing models	Performing Experiments	Total
A	10	12	6	5	0	33
B	10	5	3	7	0	25
C	5	0	1	0	0	6
D	1	2	1	0	0	4
E	6	10	7	2	0	25
F	9	2	2	8	0	21
G	4	3	6	12	13	38
Total	45	34	26	34	13	152

Table II shows the numerical and percentage distribution of activities in the books classified under the major classification of varieties. There was a total of 1,284 activities in all books under the major classifications: Visual, Oral, Writing, Drawing and Motor. Of these, three hundred sixty-five or 28.42 per cent were classified under Visual. Two hundred eighty or 21.81 per cent were classified as Oral. Three hundred fifty-one or 27.34 per cent were classified as Writing. One hundred thirty-six or 10.59 per cent were classified as Drawing. One hundred fifty-two or 11.84 per cent were classified as Motor.

Book G has the largest number of activities with three hundred ten, while Book C had the smallest number with fifty-eight activities.

TABLE II

NUMERICAL AND PERCENTAGE DISTRIBUTION OF ACTIVITIES IN SEVEN FIFTH-GRADE HISTORY TEXTBOOKS CLASSIFIED UNDER THE MAJOR CLASSIFICATIONS OF VARIETIES

	Visual		Oral		Writing		Drawing		Motor		Total number
Book	No.	Per cent	No.	Per cent	No.	Per cent	No.	Per cent	No.	Per cent	
A	30	10.31	77	21.46	98	33.68	53	18.21	33	11.34	291
B	12	15.79	14	18.42	22	28.95	3	3.95	25	32.89	76
C	9	15.52	8	13.79	22	37.93	13	22.42	6	10.34	58
D	124	60.79	14	6.86	61	29.90	1	.49	4	1.96	204
E	20	12.05	50	30.12	43	25.90	28	16.87	25	15.06	166
F	98	54.75	16	8.94	35	19.55	9	5.03	21	11.73	179
G	72	23.23	101	32.58	70	22.58	29	9.35	38	12.26	310
Total	365	28.42	280	21.81	351	27.34	136	10.59	152	11.84	1284

Table III shows the percentage distribution of all types of activities in all seven books. A look at the activities in Book A reveals that the types of activities emphasized are holding discussions, making reports, reading for information, and composition writing. In Book B the emphasis is on recitations, collecting materials, taking tests, map observation, and constructing models. In Book C most opportunities are in taking tests, with a good representation in making graphs, charts, and diagrams, and making pictures. In Book D the greater percentage of activities are in picture observation and taking tests. Book E provides a major percentage of its activities in holding discussions. The major type of activity in Book F is map observation. The greatest number of opportunities in Book G is in the area of holding discussions.

TABLE III

PERCENTAGE DISTRIBUTION OF ALL TYPES OF ACTIVITIES IN SEVEN FIFTH-GRADE HISTORY TEXTBOOKS

Book	A	B	C	D	E	F	G
Reading for information	8.93	5.26	6.90	13.73	5.42	8.94	5.16
Reading for skill-development	0	0	0	4.41	6.63	12.29	10.32
Picture observation	0	0	0	38.73	0	1.12	0
Map observation	.69	9.21	6.90	2.94	0	27.37	7.42
Field trips	.69	1.32	1.72	.98	0	5.03	.32
Recitations	3.78	18.42	0	2.45	1.20	1.12	6.13
Asking questions	1.72	0	0	0	1.81	0	.65
Holding discussions	16.15	0	8.62	3.43	23.49	1.68	24.19
Holding interviews	.69	0	3.45	0	1.20	4.47	.65
Holding programs	4.12	0	1.72	.98	2.41	1.68	.97
Composition writing	8.59	6.58	0	.49	3.61	4.47	3.23
Making reports	11.00	10.53	3.45	4.41	1.81	5.59	5.48
Making outlines	3.09	0	0	.49	1.20	3.91	0
Taking tests	0	10.53	34.48	24.51	10.84	2.23	13.23
Filling in questionnaires	0	0	0	0	1.20	0	0
Making dictionaries	6.53	0	0	0	1.82	2.23	.65
Making a who's who	2.41	0	0	0	2.41	0	0
Keeping a diary	.69	0	0	0	1.20	0	0
Writing letters	1.37	1.32	0	0	1.82	1.12	0
Making pictures	5.15	3.94	10.34	0	6.02	2.23	4.19
Making maps	8.59	0	0	0	5.42	0	2.90
Making graphs, charts, diagrams	4.47	0	12.07	.49	5.42	2.79	2.26
Collecting materials	3.44	13.16	8.62	.49	3.62	5.03	1.29
Dramatizing	4.12	6.58	0	.98	6.02	1.12	.97
Holding exhibits	2.06	3.95	1.73	.49	4.23	1.12	1.94
Constructing models	1.76	9.20	0	0	1.20	4.46	3.87
Performing experiments	0	0	0	0	0	0	4.18
Total number of activities	291	76	58	204	166	170	310

Table IV shows the numerical and percentage distribution of activities in the books analyzed that are classified under the subdivisions of the lower mental processes. There is a total of 1,373 activities which require recall, recognition, and reproduction. Of these seven hundred sixty-five or 55.72 per cent were classified under recall. Five hundred forty-one or 39.40 per cent were under the subdivision recognition. The smallest number of sixty-seven or 4.88 per cent were under the classification of reproduction. Books D and G had comparatively large numbers of activities requiring the exercise of the lower mental processes.

TABLE IV

NUMERICAL AND PERCENTAGE DISTRIBUTION OF ACTIVITIES IN SEVEN-FIFTH-GRADE HISTORY TEXTBOOKS CLASSIFIED UNDER THE CLASSIFICATIONS OF THE LOWER MENTAL PROCESSES

	Recall		Recognition		Reproduction		
Book	No.	Per cent	No.	Per cent	No.	Per cent	Total number
A	43	51.19	17	20.24	24	28.57	84
B	112	94.12	7	5.88	0	0	119
C	35	29.17	85	70.83	0	0	120
D	241	58.92	168	41.08	0	0	409
E	51	39.53	64	49.62	14	10.85	129
F	36	38.30	53	56.38	5	5.32	94
G	247	59.09	147	35.17	24	5.74	418
Total	765	55.72	541	39.40	67	4.88	1373

Table VA shows the numerical distribution of activities classified under higher mental processes - the organization of ideas. In all books there was a total of 340 opportunities under organization of ideas. Of these 123 were classified under prepare a special report. The next largest number was eighty-six under classify or arrange. Under collect information, pictures, etc. there were sixty-two activities. Under select items pertinent to the topic were thirty-two activities. In all books there were either no or very few opportunities, classified under find major or minor points, outline, and summarize. The books varied greatly in numbers of activities classified under organization of ideas.

TABLE VA

NUMERICAL DISTRIBUTION OF ACTIVITIES IN SEVEN FIFTH-GRADE HISTORY TEXTBOOKS CLASSIFIED UNDER THE ORGANIZATION OF IDEAS AS A HIGHER MENTAL PROCESS

Book	Select items pertinent to the topic	Classify or arrange	Find major or minor points	Outline	Summarize	Collect information pictures, etc.	Prepare a special report	Total
A	11	31	1	2	9	20	50	124
B	8	4	0	0	0	10	12	34
C	5	0	0	0	5	2	5	17
D	0	2	0	0	0	2	10	14
E	2	31	0	2	0	11	16	62
F	2	5	3	7	0	10	18	45
G	4	13	8	0	0	7	12	44
Total	32	86	12	11	14	62	123	340

Table VB shows the numerical distribution of activities of the higher mental processes under supplementation and use of ideas. There was a total of 627 activities classified under the subdivisions of supplementation and use of ideas. Of these there were 119 opportunities under handwork to illustrate a fact or principle. Under draw conclusions or inferences from data, there were 115 activities. Under find reasons or explanations for facts or statements there were ninety-two activities. Under create or invent new combinations of ideas there were seventy-one activities. Under make comparisons there were sixty activities. There were fifty-three activities under the subdivision of apply knowledge or principles to new situations. There were either no or very few opportunities in all books under suggest plans for activities related to the topic or under suggest additional topics for study. These books showed a wide range in numbers of activities under supplementation and use of ideas with 171 in Book G and seventeen in Book B.

TABLE VB

NUMERICAL DISTRIBUTION OF ACTIVITIES IN SEVEN FIFTH-GRADE HISTORY TEXTBOOKS CLASSIFIED UNDER THE SUPPLEMENTATION AND USE OF IDEAS AS A HIGHER MENTAL PROCESS

Book	Find examples or applications	Suggest plans for activities related to topic	Suggest additional topics for study	Show relationships	Apply knowledge or principles to new situations	Draw conclusions or inferences from data	Find reasons or explanations for facts or statements	Make generalizations	Handwork to illustrate a fact or principle	Make comparisons	Find differences or similarities	Create or invent new combinations of ideas	Total
A	14	3	0	2	8	7	35	2	30	9	0	32	142
B	0	0	0	0	5	0	0	0	12	0	0	0	17
C	4	0	0	10	11	3	1	14	12	2	5	1	63
D	1	0	0	9	3	61	4	6	0	0	2	5	91
E	2	1	2	4	8	1	10	2	18	7	7	12	74
F	1	0	0	0	1	29	11	3	12	4	4	4	69
G	4	1	0	5	17	14	31	3	35	38	6	17	171
Total	26	5	2	30	53	115	92	30	119	60	24	71	627

Table VC shows the numerical distribution of activities of the higher mental processes under criticism and evaluation of ideas. In all books there was a total of only thirty-seven activities under criticism and evaluation of ideas. Of these fourteen were classified under eliminating unimportant or irrelevant material. Under analyzing methods or motives there were twelve. There were five under recognizing special merit of ideas presented. Six were classified under evaluating evidence or explanations. There were no activities found under the following subdivisions: finding exceptions to the point made, suggesting limitations or precautions, discriminating between fact and opinion, discovering bias or prejudice, discovering over-generalizations, and evaluating suitability for a particular purpose. Three books had no activities involving criticism and evaluation of ideas. Most books had very few activities in this important area.

TABLE VC

NUMERICAL DISTRIBUTION OF ACTIVITIES IN SEVEN FIFTH-GRADE HISTORY TEXTBOOKS CLASSIFIED UNDER THE CRITICISM AND EVALUATION OF IDEAS AS A HIGHER MENTAL PROCESS

Book	Recognizing special merit of ideas presented	Finding exceptions to the point made	Suggesting limitations or precautions	Analyzing methods or motives	Discriminating between fact and opinion	Discovering bias or prejudice	Discovering overgeneralization	Eliminating unimportant or irrelevant material	Evaluating evidence or explanations	Evaluating suitability for a particular purpose	Total
A	0	0	0	5	0	0	0	0	3	0	8
B	0	0	0	0	0	0	0	0	0	0	0
C	1	0	0	0	0	0	0	5	0	0	6
D	0	0	0	0	0	0	0	0	0	0	0
E	0	0	0	0	0	0	0	9	0	0	9
F	0	0	0	0	0	0	0	0	0	0	0
G	4	0	0	7	0	0	0	0	3	0	14
TOTAL	5	0	0	12	0	0	0	14	6	0	37

Table VIA shows the numerical distribution of activities classified under the main classifications of the mental processes. In all books there was a total of 2,377 opportunities to exercise the mental processes. Of these 765 (or the greatest number) of activities were classified under recall. Under supplementation and use of ideas there were 627 activities. Under recognition there were 541 activities. There were 340 classified under organization of ideas. There were sixty-seven activities classified under reproduction. Only thirty-seven (or the smallest number) of all activities found were classified under criticism and evaluation of ideas.

TABLE VIA

NUMERICAL DISTRIBUTION OF ACTIVITIES IN SEVEN FIFTH-GRADE HISTORY TEXTBOOKS CLASSIFIED UNDER THE MAIN CLASSIFICATION OF THE MENTAL PROCESSES

	Lower Mental Processes			Higher Mental Processes			
Book	Recall	Recognition	Reproduction	Organization of ideas	Supplementation and use of ideas	Criticism and evaluation of ideas	Total
A	43	17	24	124	142	8	358
B	112	7	0	34	17	0	170
C	35	85	0	17	63	6	206
D	241	168	0	14	91	0	514
E	51	64	14	62	74	9	274
F	36	53	5	45	69	0	208
G	247	147	24	44	171	14	647
Total	765	541	67	340	627	37	2377

Table VIB shows the percentage distribution of activities classified under the main classifications of the mental processes. Of all activities, 32.18 per cent were classified under recall. The next largest per cent of 26.38 were under supplementation and use of ideas. Under recognition were 22.76 per cent of the activities. There were 14.30 per cent under organization of ideas. Under reproduction were 2.82 per cent of all activities. The smallest percentage of 1.56 is under criticism and evaluation of ideas.

TABLE VIB

PERCENTAGE DISTRIBUTION OF ACTIVITIES IN SEVEN FIFTH-GRADE HISTORY TEXTBOOKS CLASSIFIED UNDER THE MAIN CLASSIFICATIONS OF THE MENTAL PROCESSES

	Lower Mental Processes			Higher Mental Processes		
Book	Recall	Recognition	Reproduction	Organization of ideas	Supplementation and use of ideas	Criticism and evaluation of ideas
A	12.02	4.75	6.70	34.64	39.66	2.23
B	65.88	4.12	0	20.00	10.00	0
C	16.99	41.26	0	8.25	30.58	2.92
D	46.89	32.68	0	2.72	17.71	0
E	18.61	23.36	5.11	22.63	27.01	3.28
F	17.32	25.48	2.40	21.63	33.17	0
G	38.18	22.72	3.71	6.80	26.43	2.16
Total	32.18	22.76	2.82	14.30	26.38	1.56

Table VII shows the numerical and percentage distribution of activities classified under the main classifications of the higher mental processes. There was a total number of 1,004 activities in this classification. Of these 627 or 62.45 per cent were under supplementation and use of ideas. There were 340 or 33.86 per cent of the activities under organization of ideas. Only thirty-seven or 3.69 per cent were classified under criticism and evaluation of ideas.

TABLE VII

NUMERICAL AND PERCENTAGE DISTRIBUTION OF ACTIVITIES IN SEVEN FIFTH-GRADE HISTORY TEXTBOOKS CLASSIFIED UNDER THE MAIN CLASSIFICATION OF THE HIGHER MENTAL PROCESSES

	Organization of ideas		Supplementation and use of ideas		Criticism and evaluation of ideas		Total
Book	No.	Per cent	No.	Per cent	No.	Per cent	Number
A	124	45.26	142	51.83	8	2.91	274
B	34	66.67	17	33.33	0	0	51
C	17	19.77	63	73.26	6	6.97	86
D	14	13.33	91	86.67	0	0	105
E	62	42.76	74	51.03	9	6.21	145
F	45	39.47	69	60.53	0	0	114
G	44	19.21	171	74.67	14	6.12	229
Total	340	33.86	627	62.45	37	3.69	1004

Table VIII shows the numerical and percentage distribution of activities in the books under the two major classifications of the mental processes. Of the 2,377 activities the larger number were classified under lower mental processes and the smaller number were under higher mental processes. There were 1,373 or 57.76 per cent under lower mental processes. Under higher mental processes there were 1,004 or 42.24 per cent.

TABLE VIII

NUMERICAL AND PERCENTAGE DISTRIBUTION OF ACTIVITIES IN SEVEN FIFTH-GRADE HISTORY TEXTBOOKS UNDER THE TWO MAJOR CLASSIFICATIONS OF THE MENTAL PROCESSES

	Lower Mental Processes		Higher Mental Processes		
Book	No.	Per cent	No.	Per cent	Total
A	84	23.46	274	76.54	358
B	119	70.00	51	30.00	170
C	120	58.25	86	41.75	206
D	409	79.57	105	20.43	514
E	129	47.08	145	52.92	274
F	94	45.19	114	54.81	208
G	418	64.61	229	35.39	647
Total	1373	57.76	1004	42.24	2377

Table IX shows the numerical and percentage distribution of all activities of the mental processes. The total of each subdivision of the higher mental processes is shown in comparison with the total number of activities of the lower mental processes. There were 1,373 or 57.76 per cent classified under lower mental processes. Under organization of ideas there were 340 or 14.30 per cent. There were 627 or 26.38 per cent under supplementation and use of ideas. Under criticism and evaluation of ideas there were thirty-seven or 1.56 per cent.

TABLE IX

NUMERICAL AND PERCENTAGE DISTRIBUTION OF TOTAL NUMBER OF ACTIVITIES FOUND IN SEVEN FIFTH-GRADE HISTORY TEXTBOOKS UNDER THE MAIN CLASSIFICATIONS OF THE MENTAL PROCESSES

	Lower mental processes	Higher Mental Processes			Total number of activities
		Organization of ideas	Supplementation and use of ideas	Criticism and evaluation of ideas	
Total number of activities	1373	340	627	37	2377
Per cent of activities	57.76	14.30	26.38	1.56	100.0

Table X shows the numerical and percentage distribution of the total number of activities in all seven books under two major classifications. Under lower mental processes there were 1,373 or 57.76 per cent. There were 1,004 or 42.24 per cent under higher mental processes.

TABLE X

NUMERICAL AND PERCENTAGE DISTRIBUTION OF TOTAL NUMBER OF ACTIVITIES IN SEVEN FIFTH-GRADE HISTORY TEXTBOOKS UNDER TWO MAJOR CLASSIFICATIONS

	Distribution by number	Distribution by per cent
Lower Mental Processes	1373	57.76
Higher Mental Processes	1004	42.24

CHAPTER V

SUMMARY AND CONCLUSIONS

The purposes of this study were:

1. to determine to what extent current fifth-grade American history textbooks provide for a variety of activities;
2. to make a comparison between textbooks on the basis of the variety of activities included;
3. to learn to what extent the activities in these textbooks require the use of the higher mental processes.

In this study the term activity refers to any item of work or pupil behavior that aids in the attainment of valid educational objectives.

The term higher mental processes is used to designate the following activities, namely: organization of ideas; supplementation and use of ideas; and criticism and evaluation of ideas.

A classification of activities in which children might be expected to engage in using fifth-grade history textbooks was prepared. Also, a classification of the mental processes necessary to perform these activities was prepared.

Seven fifth-grade American history textbooks were chosen for use in this study. All activities were analyzed and classified both for their variety and for their use of the

higher mental processes.

The conclusions of the study are as follows:

1. The study revealed that there were 1,284 activities of all varieties in the seven history books.
2. The books showed great variations in the numbers and types of activities included.
3. The majority of activities were of the visual, writing and oral type.
4. The majority of activities in the seven history books were visual, oral or writing activities with fewer drawing and motor activities.
5. The majority of the seven history books contained few or no opportunities to observe pictures, ask questions, fill in questionnaires, make dictionaries, make a who's who, keep a diary, write letters, make maps, or perform experiments.
6. There were 2,377 opportunities to exercise the mental processes in the seven books.
7. There were 1,004 or 42.24 per cent classified as requiring the use of the higher mental processes.
8. There were 1,373 or 57.76 per cent classified as requiring the use of the lower mental processes.
9. The greatest single number of opportunities was 765 or 32.18 per cent in the area of recall.
10. The next largest number of opportunities was 627

or 26.38 per cent in the area of supplementation and use of ideas.

11. Of the 2,377 opportunities to exercise the mental processes, only thirty-seven or 1.56 per cent were in the area of criticism and evaluation of ideas.
12. Of the seven history books, the three outstanding for variety in types of activities were books A, E, and G.
13. In books A, E, and F over fifty per cent of the activities were classified under the divisions of the higher mental processes.

Studies previously reported herein indicate that a variety of activities provide rich environmental possibilities and make for freedom of choice on the part of the individual. Some books showed great variety of activities while others used only a few different types of activities.

Studies reported herein have shown also the importance of the thinking processes in a democratic society. It is the opinion of educators that the schools must provide more training in the area of problem-solving. The present study reveals that some current textbooks are making more provision for the organization and use of ideas. However, recall is still the mental process that receives most emphasis in the books.

Unfortunately the contributions of the books in the area of criticism and evaluation of ideas is negligible. Therefore, in the opinion of the writer, the teacher must use a great deal of supplementary material to provide the proper activities necessary for training in the higher mental processes.

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